

Minority Group Status and Healthful Aging: Social Structure Still Matters

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During the last 4 decades, a rapid increase has occurred in the number of survey-based and epidemiological studies of the health profiles of adults in general and of the causes of disparities between majority and minority Americans in particular. According to these studies, healthful aging consists of the absence of disease, or at least of the most serious preventable diseases and their consequences, and findings consistently reveal serious African American and Hispanic disadvantages in terms of healthful aging.

We (1) briefly review conceptual and operational definitions of race and Hispanic ethnicity, (2) summarize how ethnicity-based differentials in health are related to social structures, and (3) emphasize the importance of attention to the economic, political, and institutional factors that perpetuate poverty and undermine healthful aging among certain groups. (*Am J Public Health*. 2006;96:1152–1159. doi:10.2105/AJPH.2006.085530)

ALTHOUGH THE SUPREME

Court outlawed the principle of separate but equal in 1954 with its famous *Brown versus Board of Education* decision, many minority Americans find that they are still separate and unequal. Despite a century of impressive innovations in medical science and improvements in public health, poverty continues to undermine the physical and emotional health of a large number of Americans, and serious racial/ethnic health disparities persist.^{1–3} Low-income families have inadequate health care coverage,^{4,5} and individuals who lack adequate insurance are more likely to die from cancer and other serious diseases because of late diagnoses and deficient care.^{6–8} Perhaps the most basic question is whether health disadvantages among minority Americans are the direct and almost complete result of poverty and its correlates. Well-documented correlates include low educational levels, labor force disadvantages, and residential segregation in ghettos and barrios, where individuals are exposed to environmental and social health risks such as drugs, violence, and family disruption.^{5,9–14}

Racial/ethnic disparities in morbidity and mortality are so glaring that the federal government has been forced to respond, and a large body of research has examined the role socioeconomic status (SES) and culture play in these disparities.¹⁵ The ultimate goal is to identify the social structural

causes of inequities in health so that general population health can be improved. We will present approaches to studying racial/ethnic health disparities by (1) reviewing operational definitions of race and ethnicity and the research tools that estimate differential disease burdens and health care use, (2) assessing just how far the field has come in understanding health, and (3) proposing a future research agenda that examines the social, economic, and political forces that perpetuate health vulnerabilities.

GROUP CLASSIFICATION

During the past 2 decades, we have witnessed an increasing appreciation for the conceptual complexity of group classification and its potential for introducing bias into studies of comparative health levels.¹⁶ Individuals can be of mixed race/ethnicity, they can intermarry and identify with an adopted group, and they can even reject a group classification, particularly if that identity is imposed by others. Individuals who struggle against the social stigma associated with group classification often embrace that identity as a political statement and a sign of defiance. Standard classifications of race/ethnicity do not overlap with specific genetic profiles or attributes.¹⁷ To a large extent, such classifications are political categories defined by history and the social vulnerabilities imposed on minority groups by the dominant majority.¹⁸ A political basis of group classification does not

translate directly into useful scientific or intellectual classification.¹⁹ We no longer differentiate among non-Hispanic White nationality groups, because distinguishing which nation an individual's ancestors came from is no longer relevant. According to Richard Alba, Americans of all European ancestries have come to be viewed and to view themselves as ethnically American.²⁰ Therefore, the racial/ethnic distinctions that remain reflect enduring socioeconomic vulnerabilities.

Because of the complex social basis of racial/ethnic classifications and identities, David Williams proposed that Hispanic be included with African American and the various Asian nationalities as a racial rather than an ethnic categorization.¹⁰ His justification is that the majority of Hispanics self-identify as “Hispanic,” and although the actual percentage varies among studies, a large proportion do not further self-identify as either Black or White.^{21,22} Subjectively, therefore, what many consider to be an ethnicity is as basic as race in terms of identity. What is substantively important in such racial/ethnic classification is the identification of social and structural vulnerabilities associated with group classification. Immigration adds another dimension of complexity to ethnic categories and identities. Immigrants who arrived from the state of Guerrero in Mexico yesterday are very different culturally and socially from immigrants of the same Mexican-origin census category

whose ancestors arrived with the Conquest.²³

Census categories, even as they become more detailed and provide more choices, gloss over a great deal of heterogeneity that is of immediate importance to health and health service use.²⁴ The reality is most health survey and census data use respondents' self-reported race, but only provide a limited number of choices. Biracial individuals or individuals who consider themselves to be something other than White, African American, Hispanic, or any of the other available categories answer questions about racial/ethnic group classification in ways that are not yet understood.

Some data systems, such as the National Vital Statistics System, do not even collect information on the race/ethnicity of the decedent, and data on mortality risks come from different and potentially contradictory sources. Data on the number of deaths, for example, come from death certificates completed by funeral directors or medical personnel on the basis of information from an informant, usually a family member.²⁵ In other systems, such as those in which data are derived from hospital/patient care records, it is often unclear who made the racial/ethnic determination. The different sources of racial/ethnic classification create a potential confounding factor when recording deaths.²⁶ Information about the population at risk comes from survey data.²⁷ Each of these data sources introduces different possibilities for undercounts or racial/ethnic misclassification.

Additional reporting problems, such as the census undercount of minority group members, affect population estimates. As a

consequence of the combined effect of numerator and denominator biases, it has been estimated that death rates are overstated by about 1% for the White population and by about 5% for the African American population. Such biases lead to underestimates of mortality for other groups, perhaps up to 21% for the American Indian or Alaska Native populations, up to 11% for Asian/Pacific Islanders, up to 2% for Hispanics as a group,²⁸ and up to 6% for Mexican Americans.²⁹

In addition to gaining a better understanding of problems with administrative classification, researchers have become more aware of the potentially serious measurement biases that are inherent when self-reported health data are used. Understanding the effect of these SES, cultural, and linguistic factors on the interpretation and response to questions about health is imperative if investigators want to reduce potential bias in the collection of data from survey and clinical respondents.³⁰ The group differences in cognitive schemas and world views that ethnographic studies of local and culturally based belief systems—including those that address disease and its causes—take as their objects of investigation are methodological nuisances for survey researchers and epidemiologists who want to develop valid and universal probes that can be translated from one language to another for comparative use.³¹ Unfortunately, the figurative and imprecise nature of language makes such an objective elusive.³²

Although researchers are aware of the potential confounding of outcomes and predictors in comparative studies of the health of different groups, this potential confounding presents serious

problems to researchers who are only working with 1 cultural group. Individuals who have chronic conditions (e.g., diabetes) that have never been diagnosed by a doctor will answer negatively to a question about whether a doctor has ever told them they had the disease.¹³ Such confounding means that prevalence estimates for groups that have very different health care experiences, such as African Americans and non-Hispanic Whites, may vary greatly in their validity. In the absence of some objective criterion or other independent data about a respondent's actual condition, survey-based prevalence estimates must be interpreted cautiously.

The ways in which individuals structure their responses to general health questions or to questions about symptoms are poorly understood.³³ To make progress in measurement, researchers must have a much more sophisticated understanding of the impact of culture, language, SES, and other group-related factors on the complex response task. It is clear that reference group factors affect how individuals evaluate their own health. Other culturally based appraisals and valuations also may affect responses. For example, it is possible that in some cultures the fear of appearing arrogant leads individuals to report their health as fair rather than as very good or excellent.³⁴ One useful characteristic of comparative research is that it does not allow researchers to ignore the problems of comparability that probably affect all data collection efforts, even within the same cultural group.

We believe traditional epidemiological approaches and research instruments, particularly those that elicit self-reports of

subjective states, should be complemented whenever possible by other techniques and should include qualitative assessments of how respondents interpret questions and structure responses.²² A multimethod approach may lead to a more sophisticated understanding of subjective responses specifically and the interview response task more generally.

Understanding social structures and their impact on health requires an emphasis on both the cognitive aspects of culture and the social and material resources that individuals have at their disposal.³⁵ The combination of traditional epidemiological methods and ethnographic techniques is more effective for assessing the terminology that individuals use to talk about disease and the meaning it has for them. Combining qualitative techniques with surveys and even more objective physiological data and performance assessments will greatly improve our knowledge of real comparative health levels among different populations and subgroups.

A CULTURE OF POVERTY?

The existence of minority group disadvantages in health indicators have led many to speculate about how poverty might create and perpetuate health disparities. Some theorists have suggested variations of the culture of poverty explanation (i.e., that chronic poverty leads individuals to develop a set of orientations and behaviors that are incompatible with social mobility and economic success or effective involvement with social organizations) forwarded by Oscar Lewis several decades ago.³⁶ Susan Mayer, for example,

argued that poverty is a product of the learned present orientation of those who grow up in poverty.³⁷ Individuals who never witness a payoff to effective long-term planning do not learn the middle-class ability to delay gratification and thus do not learn to plan for their own futures. From this perspective, the social environments in which such individuals grow up do not foster a strong work ethic, nor do they encourage the resistance of immediate gratification. Individuals who have been socialized in this way are unlikely to respond to educational opportunities or interventions for changing their behavior or reducing their health risks.

Blocked Opportunities

More structural explanations focus on the limited opportunities available to individuals because of their racial/ethnic characteristics. From this perspective, the deleterious health consequences of poverty are the result of exploitation and structural vulnerabilities. Piven and Cloward, for example, explained high rates of poverty among African Americans as the result of institutional racism, which refers to the systematic differential allocation of rewards on the basis of race.³⁸ Institutional racism and discrimination perpetuate poverty and its resultant individual-level health damage through unsafe and unhealthy environments, low educational levels, inadequate medical care, and feelings of helplessness and hopelessness.³⁹

Our research and that of others show that the fundamental nature of the labor market that places African Americans and Hispanics at a disadvantage in terms of health insurance also undermines health and well-being.^{1,40}

Historically, African Americans and Hispanics have been disproportionately confined to the low-wage service sector or to casual and informal jobs, where payment is made in cash and where their ability to accumulate wealth is impaired. Discriminatory practices in the real estate market have confined many members of these groups to unsafe neighborhoods that have few local employment opportunities or community resources and inferior schools.⁴¹ Such confinement, and the inescapable poverty associated with it, create chronically high levels of physical and social stress that increase the risk for poor health and vitality.⁴² Individuals who live in these situations lack adequate social capital and thus have few resources that might improve their lots.

Poverty and deprivation can undermine a people's sense of control and rob them of the optimism needed for a healthy life. Individuals who experience poverty, relative deprivation, and stress early in life become vulnerable to a variety of stressors throughout adulthood, which increases their risk for demoralization and depression late in life.^{43,44} Older poor women, for example, are exposed to more social disruption in their lives compared with more affluent individuals, and these women's lives are often punctuated by a series of negative life events that are difficult to manage. At the same time, they are exposed to elevated levels of stress and have fewer resources for coping with life's hardships.⁴⁵

Disparities in Health Care Access

Among the reasons for the large differentials in health between majority and minority

Americans are the large differences in adequacy of health care coverage, amount and quality of care, and access to long-term care.^{46–49} Institutional racism that is rooted in culturally insensitive and discriminatory practices may explain the tendency for older minorities to receive fewer and lower-quality acute and chronic health care services.⁵ Those who spend their lives in low-wage service sector jobs are unable to save for retirement, and the employers for whom they work rarely offer health or retirement benefits.⁵⁰

Even after control for SES differences, older African Americans perceive more discrimination, personal rejection, and unfair treatment compared with non-Hispanic Whites, and self-reported discrimination has been shown to increase reports of depressive symptoms.⁵¹ In other cases, older minorities are systematically excluded from publicly funded programs. Medicaid, for example, potentially penalizes poor elderly Mexican Americans and others who have large and complex families and want to care for frail parents. Under Medicaid waiver programs, some states restrict eligibility to individuals who have serious disabilities and are unable to function and who do not have access to other community-based services or family support. Although this exclusion limits participation to those who have no other alternatives, it clearly discriminates against those who are most dependent on their families. Rather than aiding family caregivers of elderly parents, this program may discourage their involvement.⁵²

Immigration and Health Levels

In addition to SES, nativity has an important impact on health

outcomes. Studies on racial/ethnic change in the United States have shown the increasingly important role nativity plays in determining the position of immigrants within the social structure.⁵³ A generation of social stratification has drawn attention to the serious disadvantages immigrants may face in American society.^{54–56} Although a selection effect may mean that immigrants are healthier than those who remain behind or even individuals who were born in the United States,⁵⁷ immigrants often suffer economic hardships and experience other strains as part of the migration experience itself, which can undermine their mental health and impede their social integration.^{58,59}

As a result of inadequate health care in their country of origin, many immigrants may not be in optimal health when they arrive in the United States. In addition to the system-level barriers that may place the health of immigrants at risk, disadvantages immigrants face in the labor market also may place their health at risk. Many Hispanic elderly immigrants have spent the majority of their lives outside the United States toiling in often harsh and dangerous conditions for very low pay. Many have been exposed to dangerous materials and have had inadequate preventive health care. Dangerous or difficult work and the lack of regular health care can result in serious health problems later in life, and a lifetime of low pay means that the financial resources necessary for maintaining a healthy independence cannot be accumulated.⁶⁰ When these individuals become ill or incapacitated, they often have no recourse but to rely on family members for support.⁶¹

One reason why individuals lack health insurance is the employment-based system of group health care coverage in the United States. Few service sector jobs offer health insurance, and when they do, the premium that the employee is required to pay—particularly for family coverage—is prohibitive. Needless to say, jobs that do not offer group coverage are unlikely to provide wages that allow employees to purchase private insurance. In the absence of a universal health care system in the United States, minority groups and recent immigrants are often confined to working in the low-wage service sector, which makes it difficult to obtain the care necessary for maintaining optimal health with dignity.

Linguistic and Cultural Barriers to Care

Racial/ethnic classifications say little about an individual's biological or genetic makeup. In the same vein, although such classifications indicate an individual's origin, they say little about the individual's level of acculturation or cultural orientation. Broad census categories, such as Asian or Hispanic, combine various groups that have different cultures, belief systems, and histories. Specific nation-of-origin groups also have very different immigration histories; they came to the United States at different times in history, and they came for different reasons (e.g., economic opportunities vs political asylum).

Immigrants also have different levels of English proficiency and social competency, because of the age at which they immigrated and other individual, family, and community factors.⁵⁴ Although immigrant children

quickly learn the language and customs of the host society, older individuals and those who migrate to the United States late in life face particular problems in becoming fluent or proficient with the English language,⁶² and many never do. Individuals who migrate during midlife or later often find the experience to be traumatic, because they are uprooted from familiar surroundings and are thrust into a new culture where they must learn a new language, new customs, and a new set of social institutions. This can lead to mental health problems, such as depression.⁶³

Cultural and Neighborhood Protective Factors

Although poverty and a lack of assets increase health risks among older minorities, other factors associated with culture potentially neutralize these health risk factors and act in a protective manner. Cultural identity and social incorporation into a group that provides positive social involvement can improve health in and of itself, and group involvement can foster or encourage positive health behaviors.⁶⁴ Therefore, cultural factors that reduce the risk for social isolation are potentially health protective or enhancing.

Strong social institutions, such as family and church, can provide similar support that promotes health and well-being.^{65,66} Evidence suggests that religious involvement protects health generally and plays an important role in minimizing the negative consequences of chronic conditions.⁶⁷ Older Mexican American Catholics benefit from frequent church attendance and report that it provides them with comfort during times of trouble.⁶⁸

Church members can assist older infirm members with daily tasks, which allows the older members to remain in the community.⁶⁹

Recent findings showed that residents who lived in high-density Mexican American and Cuban American neighborhoods were in better health than those who lived in lower-density neighborhoods.⁷⁰ Although the data show a strong correlation between ghetto or barrio residence and poverty, other aspects of racial/ethnic enclaves may well protect health, possibly because of an enhanced sense of belonging, positive social interactions where the native language is spoken, and the availability of instrumental social support.

DOES THE EPIDEMIOLOGICAL APPROACH MINIMIZE STRUCTURED INEQUALITIES?

Much progress in understanding health risks for individuals of all ages has been made in recent decades. Yet, it is clear that much remains to be understood if disparities in health are to be eliminated or even reduced and if everyone in the population is to enjoy optimal health at every age. To that end, we suggest future research should improve our understanding of how social policy and organizational structures and practices affect the opportunities available to minority Americans in ways that directly and indirectly affect group health levels.

The structured and institutional inequalities that have impeded minority Americans' economic and social progress in the past and that continue to operate today—often in subtle ways—have their basis in a history of racism and systematic exclusion

from opportunities for economic and social advancement. Among African Americans and Hispanics, almost every aspect of social service delivery, educational opportunities, and employment opportunities have been influenced by race/ethnicity.^{71,72} Data show that the health levels of entire groups are directly influenced by the fact that political and economic power are determined by both history and the specific social policies that perpetuate the social exclusion of specific groups of people.

African Americans and Hispanics lag far behind non-Hispanic Whites in personal and collective wealth and political power. Lack of resources limits their ability to help their children and grandchildren buy houses and continue their education, and it translates into diminished economic and political power for the community as a whole. Although income and wealth do not guarantee a good and virtuous life, poverty certainly does not guarantee it either. The intentional or unintentional exclusion of groups from sources of economic and political power is a major public health problem. We must develop a better understanding of the pathways to disadvantage and how health vulnerabilities are perpetuated from one generation to the next as the result of formal policies and institutional barriers to social mobility.

Individuals choose to take advantage of opportunities for economic and social advancement, and they make personal choices that affect their health. If opportunities for personal advancement do not exist, or if they are blocked on the basis of group classification, members of that group find it difficult or impossible to avail themselves

of potential avenues for social and economic advancement. These blocked opportunities may result in frustrated hopes, demoralization, and deleterious health behaviors.

The complex association between race/ethnicity and health has been well documented at the individual level. African Americans suffer from more and more serious illnesses and die at higher rates compared with non-Hispanic Whites. Although survey-based studies that examine individuals and their vulnerabilities continue to provide useful information about health risks, their failure to directly focus on the problems of institutionalized racism and exclusion is a serious shortcoming. Studies that observe and analyze the individual have, for the most part, not been accompanied by significant attempts to understand the role larger social structures play in perpetuating racial/ethnic stratification and contributing to less favorable individual, family, and community health profiles.

There are many reasons for this relative neglect of structural and political factors. After World War II, the rapid development of survey research and the introduction of sophisticated analytic techniques pushed researchers in the direction of survey-based epidemiological and health studies. Funding agencies, including the federal government, tended to shy away from politically sensitive topics and instead focused on individual risk profiles. This focus promised to inform public policy with educational and individual-level public health interventions. The power of individual-level biological approaches has manifested itself in the recent impetus to fund research projects that examine genetics and biology.⁷³

Yet, the health profiles of communities and groups are influenced by factors well above the level of the cell or the individual. They are affected by the adequacy of public health initiatives, federal and state health care policies, and other social policies. Beyond that, health levels are affected directly and indirectly by education, poverty, housing, physical and social environmental stressors, and social exclusion and discrimination. These are emergent phenomena that cannot be understood solely on the basis of individual-level studies.

New Directions in Research

Future investigations should build upon and add to the biomedical model of disease and illness and should include a broader definition of health.⁷⁴ A more comprehensive and useful conceptual model of healthful aging might well begin with a definition that includes not only the absence of disease and physical infirmity at its core but also the institutional and structural components and factors—such as educational opportunities, good housing, and safe neighborhoods—that have been shown to affect health. The health of poor and minority Americans is undermined by what has been termed the *new morbidity*, i.e., threats to health from domestic violence, drug abuse, crime, and the pervasive sense of inferiority that is the result of discrimination.

New studies on healthful aging should examine the underlying determinants of illness within the community and develop better conceptual models and methods for assessing the structured and institutionalized stresses that minority Americans experience.⁷⁵ We need to understand how these stresses affect individual-level

behaviors, patterns of social interaction, risk for victimization, crime, poverty, and other factors that influence health and functioning at all ages. Again, this approach should avoid purely individual- or family-level attributions and should search for the larger contextual factors that result in structured inequalities and disadvantage.

Ironically, the “diseases of affluence” in the United States—obesity, heart disease, cancer, and diabetes—take their greatest toll on the least affluent. The prevalence of these chronic diseases is affected by diet and other lifestyle factors and thus is influenced by SES. Almost one half (49.6%) of all African American women and more than one third (38.9%) of Mexican American women are obese.⁷⁶ To improve the health status of minority women, newer and more aggressive efforts that educate medical care providers, extend community outreach, and improve compliance with treatment regimens are necessary. Because of the pervasiveness of the structural disadvantages minority Americans face in the labor force, the entrenched poverty characteristic of urban ghettos and barrios and continuing discrimination efforts focused solely on individual health-related behaviors are unlikely to be successful in improving population health levels.

In current practice, institutional and structural factors enter individual-level statistical models indirectly through controls for health insurance (private, Medicaid, Medicare, or other coverage) and controls for income and education. Certain hierarchical techniques include ecological and larger geographical characteristics, but these do not address

how institutionalized discrimination, specific organizational structures, or formal aspects of public policies influence the health of specific groups. Because level of education, income, and wealth are determined by both opportunity structures and personal choice, understanding how those structures are maintained and how they operate to influence health risks is necessary for understanding racial/ethnic health disparities.

The increasing awareness of the need to target research specifically at the unique health vulnerabilities of poor and minority Americans is a welcome development. Poverty, low educational levels, and other social disadvantages are the underlying causes of poor health generally, but these economic and social disadvantages are not randomly distributed throughout the population and are greatest among African Americans and Hispanics. Both groups will comprise a large proportion of the working-age population of the future, and they will comprise a growing proportion of the retired population. The capacity of the young to be productive and the general health levels and quality of life of the elderly are both affected by factors closely associated with race, Hispanic ethnicity, and inequality.

The Data Archive

Attempting to better understand these social vulnerabilities is an important research agenda. This effort will require the imaginative use of existing data sets and an enhancement of samples to include larger oversamples of minority Americans. New data collection initiatives will be difficult during what is likely to be a period of retrenchment for major funding agencies. Nonetheless,

new and specialized data that examine specific vulnerabilities among groups that live and work in specific ecological and social niches will be necessary if we are to make progress. During the past decade, the National Institutes of Health have recognized the need for specially focused surveys that show the health status and functioning of minority elderly groups. The National Center for Health Statistics supplement to the National Health Interview Survey—the Longitudinal Study of Aging (LSOA)—presented new opportunities for documenting trends and cohort changes in the health and functioning of a representative sample of aging African Americans.⁷⁷ Data from several sources enriched the LSOA data set and made the analysis of age-graded social processes possible.

Other existing and ongoing data sets include the National Health Interview Survey, the 1984 Health Insurance Supplement, the 1984 baseline Survey on Aging, the follow-up LSOA interviews, Medicare records, the National Death Index, and multiple cause-of-death files. Researchers are using these data sets to examine patterns of health service access and use, including the impact of medical insurance, family structure, housing, formal and informal sources of care, employment history, transportation, and social networks. There are many unexplored possibilities for the innovative and informative use of these data. The availability of longitudinal data makes it possible to examine (1) the sequence and the consequences of morbidity and health care access on functional independence and dependence, as well as death, within the community, and (2) the risk for institutionalization.

The possibility of new modules in ongoing efforts provides new opportunities for understanding the needs of specific groups. For example, although most survey questions were identical in the first 2 waves in the LSOA series, new information was gathered on individual risk behaviors, including health opinions, during the third wave. In addition to interviews with survivors, additional information was collected about decedents' hospitalization and nursing facility admission from their named next-of-kin contact. As part of the series, the Family Resources Supplement replaced the Health Insurance Supplement and provided in-depth information about caregiving, care receiver needs, unmet care needs, and reasons that needs were not met.

The Third Health and Nutrition Examination Survey (1988–1994) is a particularly useful source of information about the incidence and the prevalence of type 2 diabetes among the elderly. The sample had no preset upper-age limit and included individuals older than 85 years. This study included a medical examination of respondents and is one of the few data sets that provides both objective clinical observations and information about the subjective experience of having diabetes.⁷⁸ The life spans of older African Americans and Hispanics who have chronic conditions will probably increase in the future as disease management improves. Yet, without substantial improvement to the economic and social situations of these groups, they will continue to fare worse than non-Hispanic Whites. Understanding all aspects of the association between social factors, genetics,

and chronic illness is a high-priority research objective.

The Hispanic Established Populations for the Epidemiological Studies of the Elderly is an important example of a specialized study that is focused on a single group. This 10-year longitudinal study is ongoing and is sponsored by the National Institute on Aging. It examines Mexican-origin individuals who live in the Southwest and who were aged 65 years and older at the beginning of the study; its results are providing much needed information about the dynamics of aging throughout the life course. Studies of this sort are expensive and may garner little political support if they focus on powerless groups. However, without such focused efforts, our understanding of the physical and mental health and the health care needs of the minority elderly will remain superficial. National Institute on Aging initiatives that are aimed at understanding and reducing health disparities among older persons and populations will foster these efforts.

In addition to important research on the health of older minority Americans, special data makes it possible to investigate the impact of individuals' pre-retirement economic situations on welfare and health during their postretirement years. The Health and Retirement Study and the Study of Assets and Health Dynamics among the Oldest Old, for example, provide a better understanding of the complex interactions of race/ethnicity, health, economics, and other social factors on aging processes for different groups. These data show serious income and asset deficits among African Americans and Hispanics as they approach retirement, when

many of these individuals will lack resources for needed preventive, acute, or long-term care and resources for living the most fulfilling life possible, including the possibility of helping their children.

Conclusions

As we progress into the 21st century, new and important medical innovations will increase life spans and will improve the quality of those additional years. Much of that progress will no doubt result from a better understanding of the genetic contribution to disease. However, social structural factors that place certain groups at a high risk for illness and that impede their access to the highest quality health care continue to plague our society. As documented by the Institute of Medicine, institutionalized disadvantages that manifest themselves most obviously as occupational, income, and asset disadvantages across the life course translate directly into impaired health care access and poorer health among minority Americans.⁷⁹ This fact makes it imperative that we continue to examine social factors in health service, epidemiological, and health policy research. The necessities of a healthful living and healthful aging are clear, but they are out of the reach of many minority Americans. ■

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References

1. Institute of Medicine. *Coverage Matters: Insurance and Health Care*. Washington, DC: National Academy Press; 2001.
2. Link BK, Phelan JC, McKeown and the idea that social conditions are fundamental causes of disease. *Am J Public Health*. 2002;92:730–732.
3. Phillips S. *The Impact of Poverty on Health: A Scan of Research Literature*. Ottawa, Ontario, Canada: Canadian Institute for Health Information; 2003.
4. Institute of Medicine. *A Shared Destiny: Community Effects of Uninsurance*. Washington, DC: National Academy Press; 2003.
5. Williams DR, Collins C. US socioeconomic and racial differences in health patterns and explanations. *Annu Rev Sociol*. 1995;29:349–386.
6. Ayanian JZ, Kohler BA, Abe T, Epstein AM. The relation between health insurance coverage and clinical outcomes among women with breast cancer. *N Engl J Med*. 1993;329:326–331.
7. Pepper Commission. *A Call for Action. Final Report to the US. Bipartisan Commission on Comprehensive Health Care*. Washington, DC: US Government Printing Office; 1990.
8. Roetzheim RG, Pal N, Gonzalez EC, Ferrante JM, Van Durme DJ, Krischer JP. Effects of health insurance and race on colorectal cancer treatments and outcomes. *Am J Public Health*. 2000;90:1746–1754.
9. Dowd JJ, Bengtson VL. Aging in minority populations: an examination of the double jeopardy hypothesis. *J Gerontol*. 1978;33:427–436.
10. Farmer MM, Ferraro KF. Are racial disparities in health conditional on socioeconomic status? *Soc Sci Med*. 2005;60:191–204.
11. Ferraro KF, Farmer MM. Double jeopardy to health hypothesis for African Americans: analysis and critique. *J Health Soc Behav*. 1996;37:27–43.
12. Ferraro KF, Kelley-Moore J. Self-rated health and mortality among black and white adults: examining the dynamic evaluation thesis. *J Gerontol Soc Sci*. 2001;56:S195–S205.
13. Williams DR, Wilson CM. Race, ethnicity and aging. In: Binstock RH, George LK, eds. *Handbook of Aging and Social Sciences*. 5th ed. San Diego, Calif: Academic Press, 2001:160–178.
14. Hayward MD, Gorman BK. The long arm of childhood: the influence of early-life social conditions on men's mortality. *Demography*. 2004;41:87–107.
15. Bulatao RA, Anderson NB, eds. *Understanding Racial and Ethnic Differences in Health in Late Life: A Research Agenda*. Washington, DC: National Academies Press; 2004.
16. Williams DR. Race/ethnicity and socioeconomic status: measurement and methodological issues. *Intl J of Health Serv*. 1996;26:483–505.
17. Helms JE, Jernigan M, Mascher J. The meaning of race in psychology and how to change it: a methodological perspective. *Am Psychol*. 2005;60:27–36.
18. Smedley A, Smedley BD. Race as biology is fiction, racism as a social problem is real: anthropological and historical perspectives on the social construction of race. *Am Psychol*. 2005;60:16–26.
19. Williams DR. Race and health: basic questions, emerging directions. *Ann Epidemiol*. 1997;7:322–333.
20. Alba RD. *Ethnic Identity: The Transformation of White America*. New Haven, Conn: Yale University Press; 1990.
21. Tucker C, McKay R, Kojetin B, et al. *Testing Methods of Collecting Racial and Ethnic Information: Results of the Current Population Survey Supplement on Race and Ethnicity*. Bureau of Labor Statistics Statistical Notes. No. 40. Washington, DC: Bureau of Labor Statistics; 1996.
22. Daza P, Mazas C, Nguyen L, Wetter DW. Categorizing race among Hispanic smokers. *Cancer Control*. 2005;12(suppl 2):91–92.
23. Burchard E.G., Borrell LN, Choudhry S, et al. Latino populations: a unique opportunity for the study of race, genetics, and social environment in epidemiological research. *Am J Public Health*. 2005;95:2161–2168.
24. LaVeist TA. Beyond dummy variables and sample selection: what health services researchers ought to know about race as a variable. *Health Serv Res*. 1994;29:1–16.
25. Rosenberg HM, Maurer JD, Sorlie PD, et al. Quality of death rates by race and Hispanic origin: a summary of current research. *Vital Health Stat* 2. 1999;128:1–13.
26. National Center for Health Statistics. *Vital Statistics of the United States, 1992, Vol. II, Mortality, Part A*. Technical appendix. Hyattsville, Md: US Dept of Health and Human Services; 1996.
27. Aday LA. *Designing and Conducting Health Surveys*. San Francisco, Calif: Jossey-Bass; 1989.
28. Sorlie PD, Rogot E, Johnson NJ. Validity of demographic characteristics on the death certificate. *Epidemiology*. 1992;3:181–184.
29. Patel KV, Eschbach K, Ray LA, Markides KS. Letters to the ed. regarding Evaluation of mortality data for older Mexican Americans: implications for the Hispanic paradox. *Am J Epidemiol*. 2004;160:1030–1031.
30. Skinner JH, Teresi JA, Holmes D, Stahl SM, Stewart AL, eds. *Multicultural Measurement in Older Populations*. New York, NY: Springer; 2002.
31. Rogler, L.H. Methodological sources of cultural insensitivity in mental health research. *Am Psychol*. 1999;54:424–433.
32. D'Andrade R. *The Development of Cognitive Anthropology*. Cambridge, UK: Cambridge University Press; 1997.
33. Angel RJ. Narrative and the fundamental limitations of quantification in cross-cultural research. *Med Care*. In press.
34. Angel R, Thoits P. The impact of culture on the cognitive structure of illness. *Cult Med Psychiatry*. 1987;11:23–52.
35. LaVeist TA. Disentangling race and socioeconomic status: a key to solving health disparities. *J Urban Health*. 2005;82:26–34.
36. Lewis O. *Five Families: Mexican Case Studies in the Culture of Poverty*. New York, NY: Perseus Books; 1975.
37. Mayer SE. *What Money Can't Buy: Family Income and Children's Life Chances*. Cambridge, Mass: Harvard University Press; 1997.
38. Piven FF, Cloward RA. *The New Class War*. New York, NY: Pantheon Books; 1985.
39. Williams DR. Racism and health: a research agenda. *Ethnicity Dis*. 1996;6:1–6.
40. Angel RJ, Lein L, Henrici J. *Poor Families in America's Health. Care Crisis: How the Other Half Pays*. Cambridge, UK: Cambridge University Press; 2006.
41. Wilson WJ. *When Work Disappears: The World of the Urban Poor*. New York, NY: Knopf; 1996.
42. Kawachi I, Berkman LF. Social ties and mental health. *J Urban Health*. 2001;78:458–67.
43. Mechanic DC. *Inescapable Decisions*. New Brunswick, NJ: Transaction Publishers; 1994.
44. Dohrenwend BP, Levav I, Shrout PE, et al. Socioeconomic status and psychiatric disorders: the causation-selection issue. *Science*. 1992;255:946–952.
45. McLeod JD, Kessler RC. Socioeconomic status differences in vulnerability to undesirable life events. *J Health Soc Behav*. 1990;31:162–172.
46. Angel RJ, Angel JL. The extent of private and public health insurance coverage among adult Hispanics. *Gerontologist*. 1996;36:332–340.
47. Mor V, Zinn, Angelelli J, Teno JM, Miller SC. Driven to tiers: socioeconomic and racial disparities in the quality of nursing home care. *Milbank Q*. 2004;82:227–256.
48. De la Torre A, Friis R, Hunter HR, Garcia L. The health insurance status of US Latino women: a profile from the 1982–1984 HHANES. *Am J Public Health*. 1996;86:533–537.
49. Hargraves JL, Hadley J. Impact of health care context: the contribution of insurance coverage and community resources to reducing racial/ethnic disparities in access to care. *Health Serv Res*. 2003;38:809–829.
50. Crystal S, Shea DG. Cumulative advantage, public policy, and inequality in later life. *Ann Rev Gerontol Geriatr*. 2002;22:1–13.
51. Barnes LL, Mendes De Leon CF, Wilson RS, et al. Racial differences in perceived discrimination in a community population of older blacks and whites. *J Aging Health*. 2004;16:315–337.
52. Mutchler JE, Angel JL. Policy development and the older Latino population in the 21st century. *Intl J Sociol Soc Policy*. 2000;11:177–188.
53. Angel JL. Devolution and the social welfare of elderly immigrants: Who will bear the burden? *Public Adm Rev*. 2003;63:79–89.
54. Espenshade TJ, Fu H. An analysis of English-language proficiency among US immigrants. *Am Sociol Rev*. 1997;62:288–305.
55. Orfield G. Commentary on the education of Latino youth. In: Suárez-Orozco MM, Páez MM, eds. *Latinos! Remaking America*. Berkeley, Calif: University of California Press; 2002:389–397.
56. Massey D, Denton N. *American Apartheid*. Cambridge, Mass: Harvard University Press; 1993.
57. Markides KS, Eschbach K. Aging, migration, and mortality: current status of research on the Hispanic paradox. *J Gerontol Soc Sci*. 2005;60:S68–S75.
58. Angel JL, Angel RJ. Age at migration,

social connections, and well-being among elderly Hispanics. *J Aging Health*. 1992;4: 480–499.

59. Hao L, Johnson RW. Economic, cultural, and social origins of emotional well-being. *Res Aging*. 2000;22: 599–629.

60. Angel JL, Buckley CJ, Sakamoto A. Duration or disadvantage? exploring nativity, ethnicity, and health in midlife. *J Gerontol B Psychol Sci Soc Sci*. 2001; 56:S275–S284.

61. Angel RJ, Angel JL, Lee GY, Markides KS. Age at migration and family dependency among older Mexican immigrants: recent evidence from the Mexican American EPESE. *Gerontologist*. 1999;39:59–65.

62. Burr JA, Mutchler JE. English language skills, ethnic concentration, and household composition: older Mexican immigrants. *J Gerontol B Psychol Sci Soc Sci*. 2003;58B:S83–S92.

63. Angel RJ, Angel JL, Markides KS. La salud física y mental de los Mexicanos migrantes mayores en Los Estados Unidos. In: Salgado de Snyder VN, Wong R, eds. *Envejeciendo en La Pobreza: Una Género, Salud y Calidad De Vida*, eds. Cuernavaca, México: Instituto Nacional de Salud Pública; 2003: 153–172.

64. Lara M, Gamboa C, Kahramanian MI, Morales LS, Hayes Bautista DE. Acculturation and Latino health in the United States: a review of the literature and its sociopolitical context. *Ann Rev Public Health*. 2005;26:367–397.

65. Markides KS, Boldt JS, Ray L. Sources of helping and intergenerational solidarity: a three generations study of Mexican-Americans. *J Gerontol*. 1986; 41:506–511.

66. Taylor RJ, Chatters LM. Patterns of informal support to elderly Black adults: family, friends, and church members. *Soc Work*. 1986; November-December: 432–437.

67. Idler E, Benyamini Y. Self-rated health and mortality: a review of twenty-seven community studies. *J Health Soc Behav*. 1997;38:21–37.

68. Hill T, Angel JL, Ellison C, Angel RJ. Religious attendance and mortality: an eight-year follow-up of older Mexican Americans. *J Gerontol B Psychol Sci Soc Sci*. 2005;60B:S102–109.

69. Berkman LF. Looking beyond age and race: the structure of networks, functions of support, and chronic stress. *Epidemiol*. 1997;8:469–470.

70. Eschbach K, Ostir GV, Patel KV, Markides KS, Goodwin JS. Neighborhood context and mortality among older Mexican Americans: is there a

barrio advantage? *Am J Public Health*. 2004;94:1807–1812.

71. Gilens M. *Why Americans Hate Welfare: Race, Media, and the Politics of Antipoverty Policy*. Chicago, Ill: University of Chicago; 1999.

72. Quadagno J. Why the United States has no national health insurance: stakeholder mobilization against the welfare state 1945–1996. *J Health Soc Behav*. 2004;45:25–44.

73. Whitfield KE, McClearn G. Genes, environment, and race: quantitative genetic approaches. *Am Psychol*. 2005;60: 104–114.

74. Breslow L. Health measurement in the third era of health. *Am J Public Health*. 2006;96:17–19.

75. Alwin DF, Wray LA. A life-span developmental perspective on social status and health. *J Gerontol B Psychol Sci Soc Sci*. 2005;60:7–14.

76. National Center for Health Statistics. *Health, United States, 2005. With Chartbook on Trends in the Health of Americans*. Table 73. Hyattsville, Md: National Center for Health Statistics; 2005.

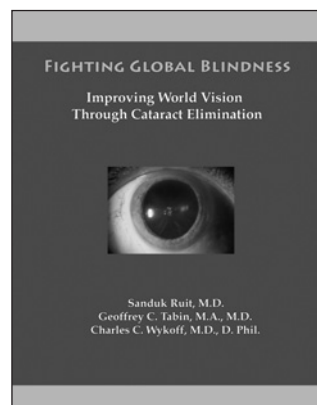
77. Kovar MG, Fitti JE, Chyba MM. The Longitudinal Study of Aging: 1984–1990. *Vital Health Stat I*. 1992; 28:1–248.

78. National Center for Health Statistics. Plan and operation of the Third National Health and Nutrition Examination Survey, 1988–94. *Vital Health Stat I*. 1994; 32:1–407.

79. Institute of Medicine. *Insuring America's Health: Principles and Recommendations*. Washington, DC: National Academy Press; 2004.

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